

Practitioner's Docket No.: 967\_029

PATENT

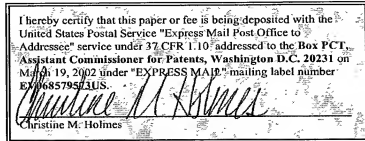
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Nishio et al.

Filed: Concurrently Herewith

For: SIGNAL TRANSMISSION SYSTEM

Box PCT  
Assistant Commissioner for Patents  
Washington DC 20231



PRELIMINARY AMENDMENT

Sir:

Prior to examination, Applicant wishes to amend the subject application as follows:

**In the Specification:**

Please replace the paragraph beginning at page 23, line 4 with the following rewritten paragraph:

--Here, the ROM table 412 which is included in the IC controller 411 in the TV monitor 302 will be described with reference to figure 7. For example, 4 bits indicating a displayable rate are stored at address 01 and, for example, in the case of a TV monitor which can display a signal of 480i and 29.97Hz, a value of 0000 is entered in the ROM table 412. Further, the number of channels of audio that can be outputted is stored at address 02 and, for example, a value of 0006 is entered when 6-channel decoding is possible. An address and a numeric value of such code are standardized in the industry. Thereby, even when the maker of the TV monitor is not known by the STB, since the minimum protocol is decided, it is possible to avoid the situation where no video image is displayed, a video image is displayed

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with an abnormal aspect, or no sound is outputted. That is, it is possible to avoid the problem that a video image cannot be displayed because the transmitting end transmits the video image with a frame rate at which the video image cannot be drawn-in at the PC monitor side or the TV monitor side, as in the conventional system.--

Please replace the paragraph beginning at page 23, line 4 with the following rewritten paragraph:

--In figure 16, numeral 1601 denotes a MPEG decoder which decodes a broadcast wave and outputs a baseband video signal, and this MPEG decoder also outputs information as to whether a frame included in a stream of the broadcast wave is a top field or a bottom field, and information as to whether a field has been repeated or not. Numeral 1602 denotes a transmission path encoding circuit, which encodes RGB signals outputted from the MPEG decoder 1601 into signals in the forms suited to the transmission path, and outputs the encoded signals during a scanning period, while superposes the top/bottom information and the field repeat information according to the form of the above-described control data during a retrace period. Numeral 1603 denotes a transmission path decoding circuit, which decodes the signals received through the transmission path into the original RGB signals, subjects the RGB signals to matrix conversion into Y color-difference signals, and outputs the Y color-difference signals. Numerals 1604, 1605, and 1606 denote field memories, and each field memory delays a video signal by a field. Numeral 1607 denotes a retrace period code analysis means which extracts the information superposed on the control data. Numeral 1608 denotes a selecting means which received output from the retrace period code analysis means 1607 and selects a field memory whose output is to be outputted.--

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Please replace the paragraph beginning at page 32, line 25 with the following rewritten paragraph:

--By the above-described configuration, the retrace period code analysis means 1607 can reproduce, without errors, the top/bottom information and the field repeat information which have been superposed at the transmitting end, and therefore, a Y output signal can be obtained by employing the correct field repeat information and top/bottom information.--

**In the Abstract:**

Please replace the abstract beginning at page 46, line 1 with the following rewritten abstract:

--A signal transmission system according to the present invention comprises: a signal transmission unit (101) that includes a MPEG decoder (103) which receives digital broadcasting and outputs a luminance signal Y and two color difference signals  $P_B/P_R$ , and a transmission path encoding circuit (103) which encodes the  $YP_BP_R$  outputted from the MPEG decoder (102) into signals in the forms suited to a transmission path and transmits the encoded signals; and a signal reception unit (104) that includes a transmission path decoding circuit (105) which receives the encoded  $YP_BP_R$  and decodes them, a Y processing circuit (106) which processes the decoded luminance signal Y, a chrominance processing circuit (107) which processes the respective decoded color difference signals  $P_B/P_R$ , a signal conversion circuit (108) which converts the  $YP_BP_R$  outputted from the Y processing circuit (106) and the chrominance processing circuit (107) into RGB signals, and a display device (108) which displays the RGB signals.

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According to the so-configured signal transmission system, it is possible to realize a signal transmission system in which hardware configurations of the video signal transmitting end and receiving end can be simplified.--

#### REMARKS

Applicants have preliminary amended the specification to correct minor informalities. No new matter has been added.

If the Examiner believes that contact with applicant's attorney would be advantageous toward the disposition of this case, he is herein requested to call applicant's attorney at the phone number noted below.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

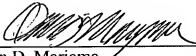
The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-0289.

Respectfully submitted,

WALL MARJAMA & BILINSKI LLP

March 19, 2002

Date

  
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20874

PATENT TRADEMARK OFFICE

**"VERSION WITH MARKINGS TO SHOW CHANGES MADE."****In the Specification:**

Paragraph beginning at line 4, of page 23 has been amended as follows:

Here, the ROM table 412 which is included in the IC controller 411 in the TV monitor 302 will be described with reference to figure 7. For example, 4 bits indicating a displayable rate are stored at address 01 and, for example, in the case of a TV monitor which can display a signal of 480i and [299.7Hz] 29.97Hz, a value of 0000 is entered in the ROM table 412. Further, the number of channels of audio that can be outputted is stored at address 02 and, for example, a value of 0006 is entered when 6-channel decoding is possible. An address and a numeric value of such code are standardized in the industry. Thereby, even when the maker of the TV monitor is not known by the STB, since the minimum protocol is decided, it is possible to avoid the situation where no video image is displayed, a video image is displayed with an abnormal aspect, or no sound is outputted. That is, it is possible to avoid the problem that a video image cannot be displayed because the transmitting end transmits the video image with a frame rate at which the video image cannot be drawn-in at the PC monitor side or the TV monitor side, as in the conventional system.

Paragraph beginning at line 2, of page 32 has been amended as follows:

In figure 16, numeral 1601 denotes a MPEG decoder which decodes a broadcast wave and outputs a baseband video signal, and this MPEG decoder also outputs information as to whether a frame included in a stream of the broadcast wave is a top field or a bottom field, and information as to whether a field has been repeated or not. Numeral 1602 denotes a transmission path encoding circuit, which encodes RGB signals outputted from the MPEG decoder 1601 into signals in the forms suited to the transmission path, and outputs the encoded signals during a scanning period, while superposes the top/bottom information and the field repeat information according to the form of the above-described control data during a retrace period. Numeral 1603 denotes a transmission path decoding circuit, which decodes the signals received through the transmission path into the original RGB signals, subjects the RGB signals to matrix conversion into Y color-difference signals, and outputs the Y color-difference signals. Numerals 1604, 1605, and 1606 denote field memories, and each field

memory delays a video signal by a field. Numeral 1607 denotes a retrace period code analysis means which extracts the information superposed on the control data. Numeral 1608 denotes a selecting means which received output from [the control period code] the retrace period code analysis means 1607 and selects a field memory whose output is to be outputted.

Paragraph beginning at line 25, of page 32 has been amended as follows:

By the above-described configuration, the retrace period code analysis means [1608] 1607 can reproduce, without errors, the top/bottom information and the field repeat information which have been superposed at the transmitting end, and therefore, a Y output signal can be obtained by employing the correct field repeat information and top/bottom information.

In the Abstract:

The abstract beginning at line 1, of page 46 has been amended as follows:

A signal transmission system according to the present invention comprises: a signal transmission unit (101) that includes a MPEG decoder [(101)] (103) which receives digital broadcasting and outputs a luminance signal Y and two color difference signals  $P_B/P_R$ , and a transmission path encoding circuit (103) which encodes the  $Y P_B P_R$  outputted from the [MPEGU] MPEG decoder (102) into signals in the forms suited to a transmission path and transmits the encoded signals; and a signal reception unit (104) that includes a transmission path decoding circuit (105) which receives the encoded  $Y P_B P_R$  and decodes them, a Y processing circuit (106) which processes the decoded luminance signal Y, a chrominance processing circuit (107) which processes the respective decoded color difference signals  $P_B/P_R$ , a signal conversion circuit (108) which converts the  $Y P_B P_R$  outputted from the Y processing circuit (106) and the chrominance processing circuit (107) into RGB signals, and a display device (108) which displays the RGB signals.

According to the so-configured signal transmission system, it is possible to realize a signal transmission system in which hardware configurations of the video signal transmitting end and receiving end can be simplified.